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BOARD MEETING
STATE OF CALIFORNIA
INTEGRATED WASTE MANAGEMENT BOARD

CALIFORNIA STATE UNIVERSITY, CHICO
BELL MEMORAL UNION, ROOM 210
400 WEST FIRST STREET
CHICO, CALIFORNIA

THURSDAY, APRIL 19, 2007

9:30 A.M.

TIFFANY C. KRAFT, CSR, RPR
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PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES

BOARD MEMBERS

Ms. Margo Reid Brown, Chair

Mr. Wesley Chesbro

Mr. Jeffrey Danzinger

Ms. Rosalie Mul

STAFF

Mr. Mark Leary, Executive Director

Ms. Julie Nauman, Chief Executive Director

Mr. Elliot Block, Staff Counsel

Ms. Kristen Garner, Executive Assistant

Mr. Jim Lee, Deputy Director, Special Waste Division

Mr. Howard Levenson, Deputy Director, Permitting and
Enforcement Division

Mr. Bill Orr, Branch Manager, Recycling Technologies

ALSO PRESENT

Mr. Dan Burgoyne, Sustainability Manager, Department of
General Services

Mr. Charles Eley, FAIA, Collaborative for High Performance
Schools

Ms. Sandra Flake, Provost and Vice President for Academic
Affairs, Chico State University

Mr. Brian Gitt, Build it Green

Mr. Dennis Graham, Vice President, Business and Finance,
Chico State University

Ms. Amy Miller, Sustainability Coordinator, Associated
Students

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APPEARANCES CONTINUED

ALSO PRESENT

Ms. Heather Rosenberg, CTG Energetics

Mr. Rod Wille, Turner Construction

Mr. Paul Zingg, President, Chico State University

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1 PROCEEDINGS

2 CHAIRPERSON BROWN: Good morning. And welcome to
3 Chico. Thank you all for being here. This is the April
4 Board meeting of the California Integrated Waste
5 Management Board at CSU Chico.

6 And I'd like to open by having Kristen call the
7 roll, please.

8 EXECUTIVE ASSISTANT GARNER: Chesbro?

9 BOARD MEMBER CHESBRO: Here.

10 EXECUTIVE ASSISTANT GARNER: Danzinger?

11 BOARD MEMBER DANZINGER: Here.

12 EXECUTIVE ASSISTANT GARNER: Mulé?

13 BOARD MEMBER MULÉ: Here.

14 EXECUTIVE ASSISTANT GARNER: Petersen?

15 Brown?

16 CHAIRPERSON BROWN: Here.

17 I'd like to remind people to please turn their
18 cell phones into the vibrate mode during our meeting.
19 I'll have to do that with mine, so I apologize. It's
20 under the table, and ignore it.

21 Anyway, there are speaker slips on the table over
22 here if anybody wants to speak to any items.

23 We have a great presentation this morning that
24 we're very excited about regarding green building. So we
25 are going to quickly move through our regular Board

1 business. And there will be no closed session at the end.

2 And before I do turn over to the Executive
3 Director for his report, would like to just mention, it is
4 take your child to work today in honor of Earth Day back
5 at the Cal/EPA building. So I have brought my daughter,
6 Catie, with me, who is over here helping Kristen. And
7 today is actually her birthday.

8 (Applause)

9 (Thereupon everyone sang Happy Birthday)

10 CHAIRPERSON BROWN: Happy birthday. Now all the
11 fun is over. Actually, no. The next part of fun, turn it
12 over to Mark for our Executive Director's report.

13 EXECUTIVE DIRECTOR LEARY: Thank you, Madam
14 Chair. Good morning, Chair and members.

15 Following your lead, I don't have much of a
16 business report to do this month in the interest of time.
17 Though I have two of the four reasons why I show up to
18 work every day here today. My stepdaughters, Jamie and
19 Melissa Lindsay, who are two of Chico State's finest
20 students. Jamie is a senior, going to be graduating in
21 December with a major in business, emphasis on management.
22 Very proud of that. And then Melissa is a sophomore
23 majoring in criminal justice and a member of the women's
24 soccer team here at Chico state. So please stand, ladies.
25 I think most of you all know Margie. Thank you for that

1 opportunity.

2 It might be appropriate, Madam Chair, to allow
3 the Chico State grads that are in the audience to identify
4 themselves. I think we have a few.

5 CHAIRPERSON BROWN: What a great idea.

6 (Thereupon Chico State Alumni identified
7 themselves.)

8 EXECUTIVE DIRECTOR LEARY: With that, Madam
9 Chair, I conclude my report.

10 CHAIRPERSON BROWN: Before you move on to the
11 next thing, I want to mention a little congratulations on
12 behalf of the Board to our member Senator Chesbro for his
13 distinguished honor this evening. He will be receiving
14 the Alumni of the Year Award up at CSU Humboldt State. So
15 congratulations on that great honor. And other honors and
16 awards just would like to mention we are extremely proud
17 of our Office of Public Affairs who's just recently
18 received several awards on behalf of their outreach
19 campaigns, most especially the Ogilvy materials and
20 marketing campaign we have undertaken for our rubberized
21 asphalt, TDA, and compost. So they've just done an
22 outstanding job and we congratulate them.

23 EXECUTIVE DIRECTOR LEARY: On behalf of John and
24 staff, thanks very much. Hopefully he and his staff are
25 listening in.

1 CHAIRPERSON BROWN: Hopefully.

2 And then what we would like to do this morning,
3 we will move first to our consent agenda. And without
4 objection from my fellow Board members, I'd like to
5 recommend that we move the fiscal consent agenda in the
6 same manner that we do the regular consent agenda as a
7 block, unless there is a particular item that anybody
8 would like to pull for formal presentation.

9 BOARD MEMBER MULÉ: So moved.

10 CHAIRPERSON BROWN: So if we can move first to
11 the consent agenda. That would be Items 1 Revised, 2, 4
12 Revised, 7 Revised, and 8 Revised are all on the consent
13 agenda.

14 Does anybody wish to pull any of those items?

15 BOARD MEMBER MULÉ: I'd like to move the consent
16 agenda, Madam Chair.

17 BOARD MEMBER DANZINGER: Second.

18 CHAIRPERSON BROWN: It's been moved by Member
19 Mulé and second by Danzinger.

20 Kristen, can you call the roll?

21 EXECUTIVE ASSISTANT GARNER: Chesbro?

22 BOARD MEMBER CHESBRO: Aye.

23 EXECUTIVE ASSISTANT GARNER: Danzinger?

24 BOARD MEMBER DANZINGER: Aye.

25 EXECUTIVE ASSISTANT GARNER: Mulé?

1 BOARD MEMBER MULÉ: Aye.

2 EXECUTIVE ASSISTANT GARNER: Brown?

3 CHAIRPERSON BROWN: Aye.

4 The consent agenda is passed.

5 And we'll move next to the fiscal consent agenda.

6 Items 3, 6, 9 Revised are all on fiscal consent. Is there

7 an item any member of the Board would like to pull from

8 the fiscal consent?

9 BOARD MEMBER MULÉ: I'd like to move the fiscal
10 consent agenda.

11 BOARD MEMBER DANZINGER: Second.

12 CHAIRPERSON BROWN: It's been moved by Member
13 Mulé, seconded by Member Danzinger.

14 Kristen, can you call the roll?

15 EXECUTIVE ASSISTANT GARNER: Chesbro?

16 BOARD MEMBER CHESBRO: Aye.

17 EXECUTIVE ASSISTANT GARNER: Danzinger?

18 BOARD MEMBER DANZINGER: Aye.

19 EXECUTIVE ASSISTANT GARNER: Mulé?

20 BOARD MEMBER MULÉ: Aye.

21 EXECUTIVE ASSISTANT GARNER: Brown?

22 CHAIRPERSON BROWN: Aye.

23 Thank you just for matter of record, Item 10 was
24 heard in Committee only. Item 5 was continued to our May
25 general meeting. And Item 11 is what we would like to

1 move to now, which is a presentation to the full Board.

2 And I'd like to ask Mark if you will come up and
3 introduce Bill Orr or Howard.

4 EXECUTIVE DIRECTOR LEARY: I'd like to take this
5 opportunity to introduce Agenda Item 11 and the Green
6 Building Panel that Bill Orr has put together. Bill has
7 been a leader within our organization on green building.
8 Currently a very active member. And sits on the Board of
9 Directors for CHPS, California High Performing Schools
10 collaborative.

11 And I want to thank Bill personally for the
12 effort he's put into putting this Green Panel together.
13 He's done a perfect job. We have a distinguished set of
14 speakers to address you here today. And I think in a
15 matter of an hour or so we're going to be up to speed on
16 the latest and greatest improvements in the technology in
17 green building. So thank you, Bill. And I'll turn it
18 over to you.

19 BRANCH MANAGER ORR: Thanks, Mark. Good morning,
20 Board members.

21 I'm really excited to be here in Chico today.
22 Been planning for this for several months. What I'd like
23 to do is briefly describe how I see the panel going,
24 because we're on a tight time frame. We have a number of
25 speakers here.

1 I've asked each of the panelists to talk for ten
2 minutes and then have time for a question or two. And
3 then depending how we're doing at the end, we can have
4 additional questions from the Board members or other
5 folks.

6 We have a very distinguished panel. There are
7 full bios in the little packet with the agenda. We're
8 going actually have sort of a two-phased presentation.
9 The first phase is going to be on green building
10 specifically. Heather Rosenberg, the Director of
11 Sustainable Communities for CTG Energetic, is going to
12 kick it off by giving us an overview of why green building
13 is important and some of the new drivers in green
14 building. And then the remaining practitioners are going
15 to talk about what's going on in different sectors of
16 construction.

17 So we're going to be having Dan Burgoyne, the
18 Sustainability Manager for the Department of General
19 Services, giving us an update on the Green Building
20 Executive Order.

21 Then we'll be having Rob Wille from Turner
22 Construction, who is actually the firm that's building the
23 building next door talk about green construction.

24 Then we'll be having Charles Eley tell us what's
25 going on in the realm of high performance schools. He's

1 the Executive Director for CHPS.

2 And then finally, we'll be having Brian Gitt, who
3 is Executive Director for Build It Green. And he'll be
4 telling us about exciting work they've been doing with
5 LEED for Homes to bring together two rating systems in the
6 residential sector. It also ties into future
7 conversations that we'll be having in terms of the Board's
8 strategic directive to incorporate green building
9 principles into building codes. So you may hear people
10 refer to that or sort of try to provide some context for
11 future discussions in that area.

12 So without further adieu, I'm going to turn it
13 over to Heather Rosenberg for the first presentation.

14 (Thereupon an overhead presentation was
15 presented as follows.)

16 MS. ROSENBERG: Thank you. Nice to be here.

17 I'm going to give you sort of a quick overview of
18 what's happening I think in the major trends looking back
19 a little bit in the green building world and then I think
20 focus my remarks as I go specifically on some of the
21 climate change impacts associated with this. I think for
22 obvious reasons that's very much in the news and very much
23 on people's minds. And I want to make sure we make those
24 connections of where those pieces fall as we go through.

25 --o0o--

1 MS. ROSENBERG: This is very quickly who CTG
2 Energetics is. We're an interdisciplinary integrated
3 consulting firm that has worked in every sector of the
4 building industry, at the building level and at the master
5 plan community level, at the city level, et cetera, et
6 cetera. So we're bringing a really interdisciplinary
7 integrated approach to our perspective on this.

8 --o0o--

9 MS. ROSENBERG: As much as we're tight on time, I
10 have to have one slide of inspirational quote or something
11 like that in here. But I really want to stress this
12 point. We can't solve problems by using the same kinds of
13 thinking we used when we created them.

14 This means we have a lot of work to do in the
15 state of California to really rethink a lot of our
16 industries and address global warming. And I think a lot
17 of that work is happening, and it's very exciting to be
18 part of that.

19 --o0o--

20 MS. ROSENBERG: The reason we're focusing on the
21 building environment is there are huge environmental
22 impacts of buildings, of infrastructure, of the general
23 built environment. You know, for example, one-sixth of
24 the world's freshwater withdrawals go to supplying
25 buildings. One quarter of the world's timber harvest.

1 Every single one of these categories here, we're talking
2 about water, timber, materials, energy and greenhouse
3 gasses. Well, energy and greenhouse gasses, that's
4 obvious those have climate impacts. But I would argue
5 every single one of these have climate impacts. And the
6 reasons we need to look through in a comprehensive way --
7 when we think about timber, for example, thinking about
8 losing carbon sequestration or the way the timber industry
9 fits into the carbon sequestration issue as well as the
10 end-of-life waste issues and waste stream associated with
11 that.

12 So making sure that, you know, as much as we want
13 to compartmentalize things, we're not just talking about
14 energy here when we talk about climate change. We're
15 talking very much about materials and waste and all these
16 other pieces. And I think there's really a strong role
17 for the Board to play in that.

18 --o0o--

19 MS. ROSENBERG: The good news is that with green
20 buildings we can address a lot of these things. We have a
21 lot of data that's showing. This is actually data from
22 the U.S. Green Building Council of all of the buildings
23 that have been LEED certified where we do have substantial
24 environmental benefits of these buildings. And many of
25 these are measured and being verified. So we're starting

1 to get to a place where we have data to draw from, where
2 we can see that, yes, this is working. We can also see
3 where the problems are and where works needs to be done.
4 But the trends look good.

5 --o0o--

6 MS. ROSENBERG: In fact, they look really good,
7 because the number of green buildings themselves are
8 growing. In fact, I think the 2006 number ended up higher
9 than the number there. I think it was closer to 750
10 million square feet of space that is LEED certified. And
11 there's a whole lot more in the cue. They're talking
12 about in the next however many years going to billions of
13 square feet. So this is a really strong trend.

14 --o0o--

15 MS. ROSENBERG: Another trend that we're seeing,
16 this is more from the residential market, is that there is
17 an increasing awareness among consumers and willingness to
18 pay. This data suggests that most people who are
19 certified -- 95 percent of the people who were certified
20 would be willing to pay \$20 a month either in addition to
21 their mortgage or some similar kind of a program for green
22 measures in their homes. There are ways to minimize that.
23 And obviously this is not necessarily the data that's
24 saying those people are paying that much more for it. But
25 they say they will, and we think there's room to look at

1 home production and look at absorption rates and
2 marketability. And there is a way that many developers
3 are talking about distinguishing themselves in the
4 marketplace. So there's a lot of growth in that area.

5 --o0o--

6 MS. ROSENBERG: We've been taking a really
7 integrated approach to looking at this, as I said. There
8 are a huge number of issues. We're not just talking
9 about, okay, well, we're going to use less of this
10 material and that's good. We're going to put PV on all
11 the rooftops of all the homes, and then we'll be green in
12 order to really assess these things in a more rigorous
13 way. We are looking at a very wide variety of data types.
14 We're looking across scales. We're looking across price
15 points, across people who are actually paying the cost, is
16 this a cost to the developer, a city, a home buyer. And
17 when you look across those levels, what metrics make the
18 most -- what design decisions make the most sense to
19 encourage sustainability and which ones are the most cost
20 effective.

21 And I think there's a lot of work in this area to
22 continue to make sure that the decisions that we're making
23 and the policy we're putting out addresses the root
24 environmental cause and not just the sort of hot buzz in
25 the market at the moment, to really do the analysis behind

1 this, because we have more and more data available on
2 green buildings, on green communities of what works, what
3 doesn't, what's cost effective, what is really important
4 environmentally, but may not be cost effective where we
5 can target our incentives.

6 --o0o--

7 MS. ROSENBERG: So just to summarize, I think
8 these are the next steps where I could imagine the Board
9 taking a leadership role and working with others who are
10 doing the same at the State level.

11 Obviously, getting a lot of these pieces into the
12 building codes, looking at materials, at waste streams,
13 those pieces, and making sure those get written into
14 codes. Systems like these are great and they're
15 voluntary. But going deeper and making this the minimum
16 requirement rather than the voluntary requirement is a
17 really important next step.

18 In addition, there's a need to I think
19 re-evaluate the relative impacts of the materials. An
20 example of this, the U.S. Green Building Council has done
21 really extensive analysis just recently and just came out
22 with a report on the use of PVC in building materials.
23 And that report is available on their website. And I
24 think it's worth looking at where we're saying, you know,
25 it depends on what you care about. From perhaps a human

1 health perspective, PVC may be a really not great material
2 to use. But from an energy perspective, your vinyl
3 windows might make a whole lot more sense and have carbon
4 offsetting or carbon mitigation ability because they're
5 more energy efficient than an aluminum or wood window for
6 example.

7 So it's not just this material is bad, but what
8 application are you using that material, and what are the
9 alternatives that would otherwise be used, so that we can
10 look at not just carbon but other environmental indicators
11 as well and make the most sustainable decisions. And I
12 think that there's a real need for deeper analysis in that
13 area.

14 And then falling from that, a need to reform
15 policy that sends the correct signals, that points the
16 marketplace in the right direction. And there's a huge
17 amount of momentum right now, as you know, on all of these
18 issues. And so I think just keeping that momentum going
19 and making sure that there's a level of rigor behind the
20 measures that we're taking at this point to make sure
21 they're technically robust and have the outcomes we're
22 working so hard about in addressing the questions that we
23 are really most concerned about.

24 --o0o--

25 MS. ROSENBERG: So that's all I have at this

1 point. I think I talked quite fast. I don't know how
2 long that took.

3 CHAIRPERSON BROWN: You did just fine. Thank
4 you. That was great. Very, very interesting. I think
5 you gave us some really salient things to think about and
6 look at as we move forward to looking at multiple options
7 for building and what are -- you know, whether it's energy
8 efficiency or waste diversion, what the goal is. When
9 somebody is looking at a green building they need to
10 determine the criteria themselves.

11 Do any Boards members have questions? Senator.

12 BOARD MEMBER CHESBRO: Yes. Has there been any
13 effort to look at the relative gain of new construction
14 versus retrofit and remodel of existing buildings and
15 where the greatest bang for the buck is? Maybe that's not
16 the right term.

17 MS. ROSENBURG: No. I think that is. We talk
18 about bang for the buck all the time. I work very much in
19 the private sector, and they love that term.

20 So I think that's really an important question
21 and one that needs a lot more research. There is
22 fragmented research being done in that area. There's a
23 lot of variables to look at. When you say redevelopment,
24 redevelopment of what. And so, you know, depends on what
25 you're starting with. Of course, I'm an ecologist. So I

1 say the answer to every question is it depends. But
2 there's so many variables to that.

3 But that said, I think really from a land use
4 perspective focusing on redevelopment and previously
5 developed areas rather than going out into green fields
6 and making sure we're protecting agricultural lands and
7 open space and green space and that kind of thing and
8 funneling development as much as we can into the urban
9 core is very well established.

10 On an individual building level, it depends on
11 the age of the building you're talking about. Is it so
12 inefficient it makes more sense environmentally to knock
13 it down and start over? I don't think it does.
14 Intuitively, my guess is that redevelopment, there's a
15 huge amount you can do at a building level even in a less
16 efficient building. But it may be cost prohibitive.

17 BOARD MEMBER CHESBRO: What you hear the most
18 about -- this is not critical of anybody. But, for
19 example, from the Green Building Council is focused on new
20 construction, which is fine and completely appropriate.
21 But I'm just wondering if there's similar work or cost
22 comparisons being done with what you were just talking
23 about, which is using an existing structure and trying to
24 figure it out to retrofit it and update it as to make it
25 as green as possible.

1 MS. ROSENBERG: The U.S. Green Building Council
2 has multiple rating systems. It's not just LEED for new
3 construction. There's also LEED for commercial interior
4 in a project that's in an existing building where you're
5 doing the interior. There's one for if you're only doing
6 exterior and also one for existing buildings. That's a
7 fairly different system that looks at operation and
8 maintenance of a building over time and actually
9 collecting that energy data and that waste data and using
10 it to make decisions and setting policy for how you're
11 operating a building. So that piece is being addressed.

12 That product rolled out a little bit later than
13 the others and it is more complicated, and because it
14 requires data is moving a little bit more slowly in terms
15 of market uptake. But that is a really important
16 direction. And, in fact, one in terms of policy that it
17 may be worth really looking at, you know, we can encourage
18 LEED Gold on commercial buildings, really a huge measure
19 would be fantastic to see that happening, but also looking
20 at existing buildings and maybe at a State level or other
21 publicly-held buildings to start to look at LEED for
22 existing buildings and changing the building stock in that
23 way.

24 CHAIRPERSON BROWN: Thank you.

25 Any other questions?

1 Thank you very much.

2 BRANCH MANAGER ORR: That's actually an excellent
3 transition, because our next speaker is Dan Burgoyne. And
4 he's going to be giving us an update on the Green Building
5 Executive Order. And it will actually include information
6 on LEED for existing buildings. So he'll, I'm sure,
7 provide more information as well.

8 (Thereupon an overhead presentation was
9 presented as follows.)

10 MR. BURGOYNE: Good morning. I'll be giving an
11 update on the Executive Order including a little bit of an
12 overview just to refresh your memory as to some of the
13 requirements of the Executive Order and then an update on
14 where we are today meeting those requirements.

15 --o0o--

16 MR. BURGOYNE: As you know, the State is a huge
17 land owner. We own many structures. We have over 20
18 million square feet in building leases. Approximately
19 1,600 buildings are executive buildings that are affected
20 by aspects of our Executive Order. We have a huge
21 building and design program underway. Approximately three
22 to four billion dollars a year is invested each year
23 towards new construction and renovations.

24 --o0o--

25 MR. BURGOYNE: Executive Order was signed about

1 two-and-a-half years ago. And as you know, it's kind of
2 created a Green Action Team which includes Agency
3 Secretaries, including the Secretary of Cal/EPA, the
4 Secretary of State and Consumer Services, the head of
5 Finance, several other -- Resources Agency. And in
6 gaining momentum, kind of got off to a slow start and is
7 gathering momentum. And now we are really in full steam
8 accomplishing many of the tasks and well on our way toward
9 meeting these objectives.

10 --o0o--

11 MR. BURGOYNE: The two primary goals of the
12 Executive Order were to, first off, reduce energy use by
13 20 percent by the year 2015. And secondly, to retrofit
14 and build and operate the most energy and resource
15 efficient buildings.

16 --o0o--

17 MR. BURGOYNE: The Leadership and Energy
18 Environmental Design, LEED, was the standard that was used
19 in the Executive Order as an requirement that all newly
20 constructed or renovated buildings over 10,000 square feet
21 need to be LEED Silver rating or higher. Silver is the
22 second of the four of these ratings, Platinum being the
23 highest.

24 And additionally, the existing buildings over
25 50,000 square feet need to be LEED EB, or existing

1 building, certified. That's something that California is
2 actually the second state to mandate LEED for new
3 construction and the first state to mandate LEED for
4 existing buildings.

5 Additionally, we're required to apply and design
6 our school buildings that are below those thresholds to
7 meet the same standard. We're just not required to do a
8 formal certification. But we still do the same thing to
9 the building. We still design them to be energy
10 efficient, to recycle, to be healthy buildings.

11 --o0o--

12 MR. BURGOYNE: So where are we today regarding
13 LEED for new construction. Currently, there are eight
14 executive branch buildings that are certified to LEED for
15 new construction standards at various levels. The most
16 recent was certified two months ago down in San Diego
17 area, which is the San Ysidro DMV office you see in the
18 photo there.

19 We currently have 37 building projects that are
20 underway for LEED certification. This includes
21 currently -- just grew to 86 buildings that equal over 5.4
22 million square feet. This is a lot of buildings
23 throughout the state that are undergoing the LEED
24 certification process. They're being designed and built
25 to LEED Silver or higher standard. This is a huge

1 accomplishment, probably one of the largest developers of
2 LEED projects in the country.

3 --o0o--

4 MR. BURGOYNE: Additionally in the existing
5 building arena, we have a number of buildings underway.
6 There are two State buildings that are currently EB
7 certified, and they're actually both Platinum level, which
8 is really exciting. That being both the Cal/EPA
9 headquarters as well as the Department of Education
10 building which was just certified platinum last summer.

11 By the way, all of the Platinum and LEED EB
12 projects reside in northern California. So the others
13 being from Adobe headquarters in San Jose.

14 LEED EB looks at building efficiency operation,
15 maintenance, purchasing practices. A lot of the activity
16 transportation practices of the building occupants and
17 points are awarded based on those criteria.

18 We currently have eight projects that year that
19 are undergoing LEED for existing building certification.
20 And those total a little over two-and-a half million
21 square feet. And we will be working on another batch next
22 year. And we have about 45 or 50 in all that fit the
23 50,000-square foot criteria that we will be going through
24 and certifying.

25 LEED EB is not a permanent certification. It

1 expires after five years. It's a process. So we plan to
2 recertify those buildings on a five-year cycle so that
3 it's not unlikely for new construction. You get your
4 certification. You hang your plaque on the wall, and it's
5 always -- you always have that certification. The LEED
6 EB, you still get a plaque, but it expires after five
7 years. So that's something that not everyone realizes,
8 but it is a process that we will need to rotate through.

9 --o0o--

10 MR. BURGOYNE: Additionally, the Executive Order
11 requires we benchmark all State buildings. For us, that
12 means 1,600 buildings. And then those buildings achieve
13 an Energy Star rating of 75 or higher. If they're less
14 than that, then we need to implement programs to improve
15 that. And currently, we're on track. We're a little bit
16 behind on that. We have about 12,000 or 12 percent of the
17 whole building stock done, which is primarily the larger
18 buildings that we've been focusing on first. We have most
19 of the larger buildings, and now we are transitioning into
20 many small buildings that we have.

21 The deadline for completing this is this calendar
22 year. So we still have a lot of work ahead of us. But
23 you can't tell how well you're doing until you measure it.
24 This is all being benchmarked back to the year 2003.

25 --o0o--

1 MR. BURGOYNE: Retro-commissioning is a process
2 of tuning up and improving the operation of your building
3 back to the way it was intended to be operated originally.
4 A lot of changes occur in the lifespan of a building that
5 change the way it's operated, and a lot of efficiency is
6 lost.

7 The Executive Order mandates that all existing
8 buildings over 50,000 square feet be retro-commissioned.
9 And there's a lot of energy savings that results from
10 that.

11 Currently, in our current process, we have three
12 buildings that have completed the retro-commissioning
13 process. We have 24 buildings in a current project that
14 are underway that will be completed this summer. And then
15 we will begin on another batch of another 21 buildings
16 beginning later this summer. So you know, that will give
17 us a really good start on the 50 or so buildings that
18 we're responsible for.

19 Additionally, these buildings will need to be
20 recommissioned again on a five-year cycle. So just like
21 the LEED EB, retro-commissioning will get your building
22 running, but you want to either continually commission it
23 or re-commission it on a recurring cycle to keep that,
24 just like you do to your car. You need to take it in
25 every so many miles to tune it up. Well, the same thing

1 with buildings, and it's important to do that.

2 --o0o--

3 MR. BURGOYNE: Executive Order requires that
4 clean power is evaluated. And the Department of General
5 Services in partnership with a number of other agencies
6 have developed a program to use third-party contractors to
7 implement green power into some of our State facilities.
8 Currently, we have over four megawatts of peak power that
9 has been installed or will be installed by the summer,
10 which displaces over five million pounds of CO2 emissions.
11 So very big project.

12 This equipment was installed -- including one
13 that was just installed here at Chico. This equipment was
14 installed at no capital cost to the owners, because it's a
15 third-party program. The contractors pay for it. The
16 contractors install it. They operate and maintain it.
17 They use our facilities. We buy back the power. And they
18 get the incentives. And we are guaranteed a utility rate
19 that is favorable and comparable or less than the current
20 utility rate that's being paid. So it's a great program,
21 and we have a new phase under development to reach out to
22 more buildings.

23 --o0o--

24 MR. BURGOYNE: And I won't go deep into this, but
25 we did have a requirement in the Executive Order to

1 identify, develop, and/or adopt a resource for high
2 performance schools which was done last year as the CHPS
3 Program that Charles Eley will talk to you about.

4 --o0o--

5 MR. BURGOYNE: And finally, environmentally
6 preferable purchasing is an area that is referred to in
7 Executive Order, but not real specifically spelled out.
8 But it is an effort I did want to touch on. We have a lot
9 of efforts underway. The EPP best practices manual, huge
10 success. Forty-one chapters completed, on-line guidelines
11 and specs for some of the most common products that the
12 State buys, as well as standards and specifications for
13 some products. A carpet standard that has been in place
14 now for about eight years and making a huge impact. A
15 mandatory State contract for low mercury lamps. A modular
16 furniture contract that was rebid yesterday, and we should
17 have some exciting results out of that environmental
18 furniture spec, as well as continued participation in many
19 national standards that are underway.

20 --o0o--

21 BOARD MEMBER CHESBRO: Can I ask a question?
22 Does the Executive Order require or are we, in any case,
23 is the State doing ongoing estimates of how much CO2 has
24 been not released into the environment?

25 MR. BURGOYNE: Actually, I'm glad you asked that.

1 I was planning to put that in, but I was so nervous I
2 forgot.

3 Yes, actually, DGS has signed on with the Carbon
4 Registry. And we are registering all of our buildings.
5 And so we will have that identified, and we'll be tracking
6 the carbon output of those buildings.

7 BOARD MEMBER CHESBRO: That's also important I
8 think from an educational standpoint in terms of the rest
9 of the building and business community having the
10 large-scale effort of the State to demonstrate what's
11 doable. There's a lot of different applications of wide
12 variety of different kind of building requirements.

13 MR. BURGOYNE: We're also working the Energy Star
14 program, and they have a program called the Portfolio
15 Manager where you can enter your portfolios. And that's
16 what we're doing. We're entering our State portfolios
17 into the program. We have a program working with the
18 utilities to automatically transfer the utility use data
19 directly to Energy Star so we won't have to manually
20 input. We'll have an automatic update. We'd like to be
21 able to tie those benchmarking data directly into the
22 Carbon Registry somehow to get those two so that we don't
23 have all those people entering data all day. It's just an
24 automatic transfer, and we get a running record of what
25 our carbon reduction is.

1 BOARD MEMBER CHESBRO: Thanks.

2 CHAIRPERSON BROWN: Thank you, Dan.

3 BRANCH MANAGER ORR: Great. Next we're going to
4 look at another part. We've heard a little bit about
5 green design, the integrated design of building in
6 communities. We've also heard a little bit about the
7 construction and the operation of green buildings. So
8 next we're going to hear about what it actually takes to
9 build a green building, because you can have the design
10 intent. You can have all of these fields integrated. But
11 ultimately in order to really end up with a green
12 building, you have to build it green.

13 So Rod Wille from Turner Construction is going to
14 tell a little bit about their story and some of the trends
15 in the green construction industry.

16 (Thereupon an overhead presentation was
17 presented as follows.)

18 MR. WILLE: Thank you, Bill. Thank you for
19 having me here this morning.

20 In early 2003, I had been with Turner for 35
21 years at that point. And I looked around at our business
22 and various business shares we had around the country and
23 was looking to see what new trends might be applicable in
24 and construction industry which has been recognized as a
25 dinosaur. We build things like we built them for the last

1 50 years, and it was kind of a challenge to see what was
2 out there that really might make sense to invest the
3 resources of the company. So it went to our Chairmen and
4 says, "Can I investigate this thing called green
5 buildings?" And lo and behold, it took me only about
6 three months from doing some traveling around the country
7 and talking to various clients to determine this thing was
8 really much more of a movement than a trend.

9 --oOo--

10 MR. WILLE: And what we were able to determine
11 going forward was that really since 1995 -- these are
12 current numbers -- we have actually completed or have
13 under the contract over 200 green building projects around
14 the country with a construction value in excess of \$13
15 billion. You can see the number of square feet.
16 Thirty-eight of those projects are LEED certified. And we
17 have another 71 in the pipeline somewhere that are
18 registered for future certification. And we're actually
19 very proud of the fact we have over 260 LEED accredited
20 professionals.

21 The reason we are able to really focus on this is
22 because we did a national survey in 2004, which really
23 showed us that people were really starting to ask for
24 green, build green, look at the features of green. And of
25 course, it was really more of a business case than, let's

1 say, the right thing to do at that point. And since then,
2 it's kind of evolved into a lot of different reasons why
3 we are trying to transform the industry.

4 --o0o--

5 MR. WILLE: Early on, I think the early
6 innovators of green building were really the public
7 sector, whether it was federal, State, local. They were
8 the drivers. And even higher education got on board
9 early. Between higher education and some K through 12
10 work, they also were the drivers.

11 But these slides I'll show you quickly that green
12 building now has evolved into literally every building
13 market that we build in. And you can see some of the
14 projects here. R&D outside of Chicago, schools --

15 --o0o--

16 MR. WILLE: -- laboratories, state work in New
17 York, Sloan-Kettering Hospital in New York City; Toyota, a
18 great story. We worked with CTG Energetics. The
19 challenge there back in probably around early 2000 when we
20 first got involved was to design and build a commercial
21 office building that was competitive with the local rates
22 down in Torrance, California. They could have gone out
23 and leased a building from a developer or built their own.
24 That building, LEED Gold certified, committed \$89 a square
25 foot including the interiors. That's phenomenal to think

1 about California and what the costs are today. So we were
2 really were able to prove to ourselves green can be built
3 at little or no cost premium.

4 --o0o--

5 MR. WILLE: Really, again, every market that
6 we've touched now -- we're even do a couple of sports
7 facilities. We're doing a new arena for the Nets in
8 Brooklyn, New York, and an arena outside of Toledo that
9 are going to be green. Every traditional market segment
10 that we work in has now shown they have a need or design
11 to build green.

12 --o0o--

13 MR. WILLE: The results of our 2004 survey also
14 did something else for the company as a whole. We really
15 decided we are going to really put our money where our
16 mouth was and put our resources into it. So we made
17 certain commitments, and this list is kind of a brief list
18 of some of the things we started in 2004 and have been
19 adding to every year since then.

20 Perhaps what most interested the Board is we have
21 actually made a commitment to recycle C&D waste on all
22 projects. As you might know, to get LEED certification,
23 you can get a couple of credits for recycling waste.
24 Well, we found around the country almost without question
25 we can recycle waste and at no cost premium or in a lot of

1 cases save money. So we are not doing that because we are
2 philanthropic people. We're doing it because it makes
3 good business sense to recycle waste. And we expect to
4 have 100 percent compliance by the end of this year.

5 We're also trying to green our operations. We
6 developed a green operations manual, field check lists.
7 All of our regional offices are now required to be LEED
8 certified. We have one that is already certified and
9 three others that are being certified right now.

10 We've invested a lot in emerging green builders.
11 This is actually -- in Sacramento, we've got a big
12 movement. These are the people that are in college or
13 young professionals -- I'm going to be long retired,
14 probably even long gone by the time this movement really
15 is pervasive throughout the country. But these young
16 people are the ones that are going to carry the torch for
17 us going forward. So we think that's an important
18 commitment to make to help them get there.

19 I'm really proud of the fact last year we made
20 some commitments to global warming. This doesn't have to
21 pay back. You can always say you're saving money on
22 recycling or getting sales as a result of your green
23 operations. But we've really made some commitments to
24 global warming. We joined the EPA Climate Leaders and are
25 doing our climate footprints throughout all of our

1 offices. We joined Ed Nazrias Architectural 2030
2 Challenge to design carbon neutral buildings by the year
3 2030 and Clinton Climate Initiative working in major
4 cities around the U.S.

5 --o0o--

6 MR. WILLE: We've developed an on-line training
7 course with the U.S. Green Building Council which we give
8 to all our people and are making all our subcontractors on
9 every green project have somebody take that course.
10 Because we're finding that to keep the cost down or drive
11 the cost of green down, we need our subcontractors and
12 vendors to really understand it. Up until now, there's
13 been a lot of reluctance. They see the word LEED in the
14 specifications, all of a sudden they throw money at it
15 because there's a fear of the unknown and what does this
16 all involve. So now we're actually requiring all of our
17 subcontractors to take this course to get some basic
18 understanding of what it's all about.

19 As I said earlier, we have over 260 LEED AVs in
20 office. Our goal is to get at 300 by the end of this
21 year. And we now made a commitment to assign a LEED AV to
22 every green project. So we now will have the expertise on
23 our team going forward.

24 We have an Advisory Board. We're meeting next
25 month in New York. Our goal for our next meeting is to

1 develop a five-year strategic plan for our green
2 initiative, which is saying by the year 2012 I would like
3 to see green as part of the culture, just the way safety
4 and affirmative action and other things we do as just a
5 matter of course of doing business that green and
6 sustainability become part of that.

7 --o0o--

8 MR. WILLE: So, let me talk for a second about
9 this national survey. This is what it looks like. And I
10 actually brought a couple of extra copies which the Board
11 is welcome to look at. We did one in '04 which led us to
12 the commitment. We did it again in '05 which confirmed
13 the '04 results. And actually doing another one now with
14 McGraw-Hill which will be available probably in another
15 month or two.

16 --o0o--

17 MR. WILLE: The findings, really just for the
18 lack of time, I'm going to just summarize in three points.
19 Green building activity is increasing. This has been
20 consistent over the last two reports. Eighty-three
21 percent of the respondents said their green building
22 activity had increased over the past three years, and 87
23 percent said they expect their activity to increase over
24 the next three years. So those numbers are so significant
25 that we were convinced this was a movement and not just a

1 short-term trend.

2 The other good news is that the perception of
3 benefits is greater. People, the highest perceived
4 benefit was the health and well being of occupants.
5 People see or at least perceive, because it is a survey,
6 that their occupants are, you know, going to be less
7 inclined to be sick in schools. As Charles knows, you
8 know, the asthma and the air quality issues are such a big
9 factor. Green helps combat that. Productivity is higher.
10 So there really are a lot of benefits that people are
11 starting to see and therefore they're asking for green
12 buildings.

13 However, high cost is still the most discouraging
14 factor. Both our surveys in '04 and '05, believe it or
15 not, these are allegedly real estate people who are
16 involved with green buildings or expect to be, their
17 perception was the cost of green, however you define that,
18 is somewhere between 13 and 18 percent premium over
19 traditional design buildings. And that's just plain
20 wrong.

21 Let me just end with that statement. Because as
22 you saw from the Toyota example or as you might have seen
23 or heard, Greg Cass did a study a couple years ago for the
24 state of California, analyzed 33 buildings. His
25 conclusion was that, you know, to get to LEED Silver,

1 second level up the latter, maybe 1.8 percent premium.
2 Davis Langdon in the Bay Area has done studies showing
3 similar results. Really, as I travel around the country
4 and, you know, working with our offices and clients and
5 designers, green or even LEED basic certification can be
6 achieved at no cost premium. And I'm here today to say
7 that is a fact, and we're seeing it around the country.
8 So there's no reason why a client should not be willing to
9 look at that as an option when planning a building.

10 --o0o--

11 MR. WILLE: The way that that is achieved -- I
12 just want to close with this slide. I'll flip up all the
13 bullets here -- is what we call an integrated design. You
14 know, when I started back with the company some years ago,
15 we used to do integrated design. We didn't call it that
16 then, but we used to sit around the table for months
17 before the job started with designers and architects and
18 everybody talked and did their own thing.

19 Now as a result of technology, CADD, and lower
20 fees, it became a very sequential design where the
21 architect to do the floor plan and the engineer overlay
22 the structure and eventually we price it and we build it.
23 Well, we need to get back to this integrated design
24 concept, which is a team approach, starts early with an
25 eco charette where everyone sits around and brainstorms

1 what features could go into that building. And you really
2 sit around a table with computers. I mean, our estimator
3 will be sitting there. The architect would say, "I would
4 like 100 square feet of windows." The engineer will say,
5 "If you do that, we can save 50 tons of air conditioning."
6 And our guys will say, "If you do that, you can save
7 \$50,000 cost." And the owner says, "That's a good idea.
8 Let's do it." That's the type of process we need.

9 So when you look at the types of issues that are
10 involved there, you know, understanding paybacks and
11 benefits, value analysis, I mean, this has to do not with
12 just trading vinyl wall covering for paint to save money,
13 but to look at the long-term return on the investment of
14 the decision. What is the payback? If you use an energy
15 efficient chiller, what will the energy savings be over
16 20 years or so, and that should drive the decisions rather
17 than the first cost.

18 Local market issues are huge. Again, being a
19 national company, you know, what works here in California
20 certainly does not necessarily work on the east coast
21 because a lot of the products, a lot of the
22 subcontractors, a lot of the building codes are localized
23 and therefore extremely important to maximize the cost
24 effectiveness of a green building is to really understand
25 the local market.

1 And as I think Dan alluded to, you know,
2 commissioning, retro-commissioning, to me, that's the
3 sacred holy grail of this. I mean, that really gets all
4 of your systems up and running the way they should be. So
5 these are the types of things we at Turner are
6 implementing as a company. I really feel we are the
7 leader in kind of again a dinosaur industry. I'm
8 involved -- actually right now I just had a conference
9 call yesterday with the associated general contractors out
10 of D.C. They're developing a manual. So I'm glad to see
11 that our industry is now getting on board with this,
12 because really it's been owners and to a large extent
13 architects and engineers that have been driving the green
14 buildings. And I'm really proud of what our company has
15 done and hope we can maybe set an example for the rest of
16 the industry.

17 So with that, thank you very much.

18 CHAIRPERSON BROWN: Thank you. Question.

19 BOARD MEMBER CHESBRO: I seem to be the one
20 asking the questions this morning.

21 You just mentioned being in the room with the
22 client and being able to talk about the balancing of some
23 potential. You said it shouldn't be more expensive, but
24 presenting the savings in order to show them what can be
25 accomplished. Generally, if you look out in the

1 marketplace with realtors and the financial industry that
2 finance these things, there's an obsession with, A,
3 up-front square foot cost and, B, resale, the affect on
4 resale in the future if you decide you want to get out of
5 whether you're talking about a home or commercial
6 structure. And getting the question of operational cost
7 plugged into that equation is I think one of the
8 challenges in the marketplace.

9 Because I know as a homeowner when you go --
10 you're looking for a new home and you're trying to plug in
11 all of that stuff, you know, the realtors and the bankers
12 are really discouraging. They're like worried about the
13 up-front cost and worried about the long-term resale value
14 and don't worry about the operational cost. But getting
15 operations plugged into an equation with the up-front cost
16 is a challenge in the marketplace. You talked about doing
17 it directly with the client when they've already bought
18 into your services. But can you comment on what can be
19 done or is being done in the marketplace to get operations
20 considered as part of the equation?

21 MR. WILLE: It's an education process. Probably
22 the biggest responsibility I have within the company now
23 is to go around and speak at conferences to potential
24 clients about this. I mean, the first cost is always the
25 big issue. And, again, as I said, we're driving that down

1 to zero. If we can convince the CFOs of this world to
2 look at a return on investment that that would
3 automatically make green the preferred methodology to
4 build. But it really is an educational process. I mean,
5 there's no way about it.

6 I get sick of hearing myself talk about these
7 things. But if I look around and people in the audience
8 ask questions, I know that they don't understand it.
9 Therefore, hopefully the message is slowly but surely
10 getting through. And that really is what it's going to
11 take is just more of an indoctrination.

12 I think architects and even some of the Turner
13 offices are becoming more proactive. Owners will come
14 into our office and will be involved early on in
15 pre-construction looking at a traditional building. And
16 some of our people and certainly a lot of architects will
17 say have you considered green. Maybe you don't want to go
18 for LEED certification, but at least let's look at energy
19 efficiency. That almost has been immediate calculable
20 payback. Maybe the health and well being and the
21 productivity issues are a little fuzzy in some people's
22 mind. But if you can show them with sound engineering
23 that you can save money on electricity and gas and
24 whatever, that tends to make sense to a lot of clients.
25 So we are becoming more proactive, and I think more and

1 more clients are getting it.

2 The other issue which is integrated design, I got
3 a whole bunch of calls yesterday on this AGC. It's very
4 hard to do an integrated design process with a lump sum
5 bid methodology or design bid bill, which unfortunately a
6 lot of State, federal, local agencies are stuck with. And
7 really it goes contrary to the issue of integrated design.
8 So really the other thing we're preaching in this agency
9 manual and they're going to be publishing in a couple of
10 months is really the need for everyone to really consider
11 having the contractor on board early to get input on some
12 of those issues that are important to the integrated
13 design. So long answer to a good question.

14 BOARD MEMBER CHESBRO: Thank you.

15 CHAIRPERSON BROWN: Quick question. And you sort
16 of touched on it. Do you see in the near future any
17 trends on LEED certification being a marketable part of
18 resale of a building? I mean, if a building -- it's a
19 selling point that this is an energy efficient building
20 and there is LEED certification, is that a bonus?

21 MR. WILLE: I'll leave this survey. If you look
22 to the overall market, building value is the second
23 greatest benefit after the health and well-being of the
24 occupants that people perceive as a result of green. So,
25 therefore, you could say you can tie green to LEED which

1 is a pretty good tie that the value of that building --
2 the developers like Gerald Heinz that are used to doing
3 LEED Silver as the standard, why are they doing it?
4 Again, Heinz is not a philanthropic organization the last
5 time I checked. They're doing it because of the value of
6 the building.

7 If you look at other buildings like
8 institutional, schools, hospitals, buildings, the average
9 school in this country I had think is 42 years old. Over
10 the life of that building, these things will tend to
11 create more value over a longer term.

12 So, yes, the answer is they do create value, and
13 people are starting to recognize that.

14 CHAIRPERSON BROWN: Thank you very much.

15 BRANCH MANAGER ORR: Next we are going to change
16 gears a little bit. We've been mostly talking about
17 commercial buildings up until this point. And our next
18 speaker is Charles Eley, the Executive Director of the
19 Collaborative for High Performance Schools. And he's
20 going to tell us what's going on in the world of high
21 performance schools and actually a little bit about how
22 the Board has contributed to those efforts.

23 (Thereupon an overhead presentation was
24 presented as follows.)

25 MR. ELEY: Thank you, Bill. And thanks for

1 inviting me.

2 And I've done a lot of school districts that
3 would like to build their schools for \$89 a square foot.
4 The State Architect tells me the average cost now is well
5 over 300. So that's a great number, two years ago.

6 CHPS is a nonprofit organization. We're about
7 six or seven years old. Their goal is to improve the
8 quality of education for California kids by providing them
9 with better learning facilities, better learning
10 environments that are resource and energy efficient and
11 healthy, comfortable, so forth.

12 CHPS, it's a California-based organization. Bill
13 Orr is one of their Board members. And we have about 17
14 Board members now that represent a variety of State
15 agencies, utilities, architects, and private practice,
16 school districts, county boards of education. We've had
17 some success, and we have over 100 members now. And we're
18 moving ahead.

19 --o0o--

20 MR. ELEY: Their program has been to push school
21 districts in California to adopt their standard. And to
22 date, about 20 have. They're shown on the map here. If
23 you look at some of those names, they'll recognize some of
24 the larger school districts. LAUSD is one of them, San
25 Diego City schools, San Francisco. Those are the

1 elephants among the school districts in California.

2 There's about a thousand school districts in
3 California. We have roughly 10,000 schools. We're
4 building 1- to 200 new ones a year and probably
5 modernizing another 1- to 200 a year.

6 The California school districts have been
7 spending between 5 and \$10 billion a year on new
8 construction and major modernizations. It's a staggering
9 number. And in a way, we're kind of catching up from
10 Prop. 13, an issue that ripped the heart out of school
11 funding 20 years ago. But California voters have been
12 very generous of late in approving matching funds. And
13 school districts have been able to come up with their
14 50 percent rough share through a variety of mechanisms,
15 including local bonds issue and so forth.

16 There's over 25 schools that have been recognized
17 as meeting their standard. And there's at least 100
18 underway, the 100 that we know of, anyway. And CHPS has
19 also taken off in other areas: Massachusetts, Washington,
20 New York, several other New England states have adopted
21 versions of their program. And I was talking to Dan,
22 who's a USGBC Board member. I think CHPS's success in
23 California has also spurred the USGBC to develop its LEED
24 for schools standard.

25 When we started CHPS, we approached USGBC and

1 said do you have any plans of developing a rating program
2 for schools, because we sure need one? And they said, no.
3 It's not in their plan. Their plan is to have one rating
4 system for all buildings. And we said, well, we need one.
5 We're going to do it. And the message was, go for it. So
6 we did.

7 And the programs are similar. CHPS is equal to
8 about LEED Silver if you do a one-by-one comparison. And
9 the LEED for schools program has picked up a lot of the
10 CHPS credits on acoustics and joint use of facilities and
11 other things that are tailored to schools.

12 --o0o--

13 MR. ELEY: We have a lot of programs. We offer a
14 lot of training programs, design charette, workshops.

15 --o0o--

16 MR. ELEY: The centerpiece of their program
17 really is their best practices manual. This is a six
18 volume set.

19 The first volume is kind of a marketing piece
20 that's targeted towards school superintendents, interested
21 parents, teachers, and it speaks to the benefits of high
22 performance schools.

23 The second volume is a tome. It's around 800
24 pages. And it's full of technical information for
25 architects and engineers and contractors.

1 Volume 3 is their standard criteria.

2 Volume 4 is a manual that focuses on maintenance
3 and operations of schools.

4 Volume 5 focuses on commissioning of schools.

5 And Volume 6, which was released just recently,
6 is a standard and set of guidelines for relocateable
7 classrooms. And we're beginning to get some traction with
8 that program.

9 --o0o--

10 MR. ELEY: Of late, just a few highlights of
11 what's been going on. Prop. 1D passed last fall, provided
12 10.4 billion in State and matching funds. And there was a
13 \$100 million incentive in that bill. And in December, the
14 CHPS criteria was chosen as the design standard for
15 allocation of that 100 million incentive.

16 In January a couple months ago, we released our
17 Volume 6 on relocatable classrooms. Already, we have a
18 couple of manufacturers, one in this area actually, that
19 are building to that standard now. And we have a program
20 underway to provide some incentives to school districts
21 that purchase and install relocateable classrooms built to
22 the high performance standard.

23 The various states that have adopted CHPS like
24 programs have created a Steering Committee, and there's
25 some movement to kind of organize the CHPS programs at a

1 national level. That is the kick-off meeting of that in
2 February.

3 Our Technical Committee, which is Chaired by Bill
4 Orr, has already begun work on the next round of their
5 criteria. This is really kind of a continuous maintenance
6 program keeping these standards up to date.

7 And then last month, we launched our verification
8 program for schools. This is a program that will involve
9 third-party independent review of the design and the
10 construction phases to show that schools meet our
11 standard. And in the fall, we have our first conference,
12 annual first conference schedule called Green Tools for
13 Healthy Schools. That will be in San Francisco in
14 September.

15 --o0o--

16 MR. ELEY: The Waste Board, we couldn't have done
17 it without you. Thank you. You've been a major player in
18 the CHPS program since the beginning, along with the
19 Energy Commission, the State Architect, the Office of
20 Public School Construction, and several other State
21 agencies, the utilities. And your support has enabled us
22 to achieve what we have. And we're very proud of those
23 achievements, and I want to thank you again --

24 --o0o--

25 MR. ELEY: -- for all the help that you've given

1 us.

2 And I'll take questions now.

3 CHAIRPERSON BROWN: Do you have any questions?

4 BOARD MEMBER CHESBRO: Yes, but does anybody else
5 want to go first?

6 Well, in 2002, I was the author of the ed bond,
7 facilities bond. And one of my own personal priorities
8 was to get some incentive money built in for alternative
9 energy and conservation in school facilities. And at
10 least during the time I kept pestering everyone trying to
11 figure out why, nobody could really explain why it was so
12 undersubscribed, why schools weren't using that money,
13 except to say that the people who design school facilities
14 and the school boards were all focused very narrowly on
15 cost and traditional design values and just weren't really
16 that concerned about their energy budget. So, therefore,
17 it was a secondary consideration. But it was a great
18 frustration to me. I don't know what's happened the last
19 couple of years --

20 MR. ELEY: It has been used.

21 BOARD MEMBER CHESBRO: That's good news. Because
22 it really was an indication to me how far behind we were
23 in terms of schools realizing. And I realize this package
24 is much more than energy and savings. But from a school
25 board standpoint, you'd think the energy bill would be a

1 pretty -- their operational cost would be a pretty big
2 thing, because they can do more for the kids if they
3 weren't paying out so much for utility bills. But can you
4 comment on what the situation was there? And I'm glad to
5 hear it is --

6 MR. ELEY: I think that it was partly a problem
7 of launching the program. I think we're going to get
8 subscription into the High Performance Schools Program. I
9 really do.

10 CHPS has been giving training for five years.
11 We've reached all of the architecture and engineering
12 firms that do new schools in California. Their own board,
13 they know what's involved. They're familiar with the
14 criteria. And from what I can tell, you know, there's
15 always this pipeline of money as soon as a new bond issue
16 comes up. As near as I can tell, a third or so of the
17 projects in that pipeline will be applying for it.

18 BOARD MEMBER CHESBRO: Good. It's the only place
19 I ever got money in a budget that people didn't go,
20 "That's where the money is," and go running to try to grab
21 it. I just kind of floored me that --

22 MR. ELEY: The incentive is about a two percent
23 increase of what the State could give you. So if you --
24 but it goes up even more from that if you get more CHPS
25 points.

1 BOARD MEMBER CHESBRO: I think the theory was you
2 got an incentive to look at it. And then once you start
3 looking at it, you'll start thinking about the savings and
4 realize not only are they getting up-front incentives,
5 it's also going to benefit them in the long term. So
6 thanks.

7 MR. ELEY: Sure thing.

8 CHAIRPERSON BROWN: Thank you very much.

9 MR. ELEY: You're welcome.

10 BRANCH MANAGER ORR: Okay. We're to our last
11 speaker. He's batting and cleanup. And Brian Gitt is the
12 Executive Director for Build It Green. And he's going to
13 be telling us about some exciting developments in the
14 residential sector.

15 (Thereupon an overhead presentation was
16 presented as follows.)

17 MR. GITT: Thanks so much, Bill.

18 It's probably fitting cleanup, because the
19 question before of biggest bang for your buck came up.
20 When we look at the economy of California, it's driven by
21 construction. And when we drill down a little bit further
22 on the total dollar spent on construction, residential
23 construction, schools, civic buildings, commercial, and
24 they don't come close to equaling residential. So when we
25 talk about biggest bang for our buck in terms of our

1 resource impacts, dollars spent, residential dwarfs all
2 other building types. All are important obviously. We
3 need to be working all of them. But we can't forget
4 residential, because it's extremely important in this
5 configuration.

6 --o0o--

7 MR. GITT: So in the next ten minutes, I'm going
8 to just briefly tell you who Build It Green is and what we
9 do. And more importantly, about a new program called
10 Green Point Rated and how we enforce a strategic
11 relationship with LEED for Homes in California. And
12 you'll talk about how that collaboration will work. And
13 then most importantly, how this program is going to
14 tangibly help the state of California meet its CO2 goals.

15 --o0o--

16 MR. GITT: So Build It Green, we are a 501(c)(3)
17 nonprofit organization. One of the things we pride
18 ourselves on is a diverse membership. We are not a public
19 agency focused organization or a private sector or an NGO
20 focused. We walk this very precarious line in the middle.
21 We're the nucleus between all of the building industry
22 stakeholders, and we're that central point where they can
23 get together to have common dialogue and communication and
24 share ideas.

25 Our focus is on California. It is so, so

1 important. As we all know, California has very specific
2 goals and resource needs and climate differences from
3 other areas of the country. So our program is tailored to
4 and customized to the state of California.

5 Our whole mission: Promote healthy, energy, and
6 resource efficient buildings throughout the state. And we
7 are seen as a trusted unbiased resource for professionals
8 and the public.

9 --o0o--

10 MR. GITT: Our strategic plan comes down to one
11 goal, and I'm glad there's only one goal, because I don't
12 know if I can keep track of a whole lot of them. We do a
13 whole lot of things in terms of programs. We do education
14 and training for building professionals. We help local
15 governments develop policy. We do consumer awareness with
16 home tours and workshops. All that stuff at the end of
17 the day has to boil down to one tangible thing, and that's
18 how many houses actually get designed and built to a
19 credible green building standard within the state of
20 California. That is our goal. Our short-term goal by the
21 end of '08 is to have 10,000 housing units built to that
22 credible standard.

23 Now we have four ways that we get there, four
24 main objectives.

25 Number one, supporting credible policy throughout

1 the state. And we are currently working with over 80
2 public agencies, mainly local governments, cities,
3 counties, joint power authorities, et cetera, that are
4 establishing consistent green building guidelines. So
5 there's a common definition of what green building is in
6 the state.

7 Second, expanding building professional
8 expertise. It's great if we have all the policy. But if
9 we don't have the service providers, we don't have the
10 architects, the builders, the engineers that know how to
11 actually design and build the stuff, we have a problem.
12 We've certified over 800 building professionals to date
13 through our training program. After that, though, if you
14 have the service providers and the policy, if you don't
15 have access to those products, materials, and
16 technologies, that's going to be another challenge, a big
17 stumbling block. We're working with the entire supply
18 chain, manufacturers and distributors and retailers to
19 make sure when that architect specifies that material,
20 that that builder can get it cost effectively and
21 conveniently and have that access.

22 Fourth, last but certainly not least, is consumer
23 demand. That's what's going to drive us. We take a
24 market-based approach. We believe if consumers are
25 educated about the benefits of residential green building

1 and they want that healthy and energy and
2 resource-efficient home, they're going to ask for it. We
3 have a lot of programs that address that.

4 --o0o--

5 MR. GITT: So how does this thing called Green
6 Point Rated fit in? All that stuff I talked about, all
7 the training and education, we need a way to quantify our
8 impact. So we know exactly how many tons of waste we're
9 diverting, exactly how many gallons of water we're saving,
10 how many CO2 emissions we're avoiding, et cetera. And so
11 a third-party verification program is what we created for
12 residential to do that. Again, this program is California
13 grown and community-based. Again, it's tailored to
14 California. We have a very unique situation here in our
15 climate, in our stakeholders, and our goals of various
16 resource agencies. So what I'm going to talk about today
17 is how this regional and California-based program is
18 complimentary and mutually supportive of LEED for Homes
19 and how they're going to work together.

20 --o0o--

21 MR. GITT: Our program, Green Point Rated,
22 reflects above-code performance in California. It shows a
23 builder how much better than California code they are
24 doing. Whereas, a national program can't do that. It
25 can't show you incrementally how much better in these

1 various resource categories you're doing than code. We
2 have five main categories. We're talking about resource
3 conservation, energy, water, waste, and indoor air
4 quality. And you need to score -- there is a credible
5 minimum threshold of points overall that you need to
6 score.

7 --o0o--

8 MR. GITT: This just summarizes a few
9 prerequisites. There is a major ideological difference
10 between Green Point Rated and LEED. That difference is
11 Green Point Rated gives maximum flexibility to the
12 builder. It says here's a list of a bunch of great things
13 to do. You guys choose what to do depending on your
14 budget and your project. We'll give you a minimum
15 threshold of points you need to achieve in each category,
16 but you choose how to do it. Where LEED takes a different
17 approach and says, we have a bunch of mandatory
18 requirements in all these areas you have to do. Because
19 LEED is a much higher bar. It is a leadership standard by
20 definition, that top 25 percent of the market.

21 What Green Point Rated is doing is giving that
22 credible and accessible entry point for a builder that is
23 not ready for LEED. That builder might look at LEED and
24 say there's no way I'm doing those 18 pre-reqs in that
25 project. I can't do it. Instead of that builder or

1 architect just walking away throwing up their hands being
2 gone for five years, they can have Green Point Rated,
3 which is the tailored to California program that gives
4 them that entry point to higher levels of performance.
5 Green Point Rated also goes up way up to the deepest green
6 platinum home you can build. But it has a wider band up
7 the market that it works.

8 So you'll see we have a few pre-reqs though. And
9 you'll be happy to see that waste diversion is a pre-req.
10 So we do require 50 percent waste diversion for any Green
11 Point Rated home as well as 15 percent above Title 24, et
12 cetera.

13 --o0o--

14 BOARD MEMBER CHESBRO: When you say waste
15 diversion, are you talking about the construction waste or
16 are you talking about --

17 MR. GITT: As well as reuse is also factored in.

18 BOARD MEMBER CHESBRO: In the construction
19 itself?

20 MR. GITT: Correct. In the construction of that
21 building.

22 BOARD MEMBER CHESBRO: Thank you.

23 MR. GITT: What's similar about LEED for Homes
24 and Green Point Rated? The first thing is they both
25 require performance across various categories. Our

1 program is not just energy or waste or not just water.
2 It's a comprehensive green building program that covers
3 all of the essential elements and fundamentals of green
4 building. Those programs encourage builders over time to
5 go over higher levels of performance. And we both serve a
6 full range of new construction in California.

7 --o0o--

8 MR. GITT: So what's different? Number one, LEED
9 for Homes is a national environmental award. That's the
10 way I think of it. It is for the top tier of really green
11 projects that deserve that national recognition. Green
12 Point Rated is serving as that accessible yet credible
13 starting point for builders. We're talking about that
14 wider band of the marketplace.

15 Green Point Rated is giving maximum flexibility.
16 We talk about pre-reqs versus having more options of what
17 to choose. LEED for Homes is giving differentiation
18 amongst the greenest builders. It's really allowing those
19 green builders to differentiate themselves as they go up
20 the tiers of Gold and Platinum, et cetera.

21 Again, LEED has more participation requirements
22 to get in. And Green Point Rated references California
23 building codes and building conditions here and works with
24 California stakeholders. So when we update and revise our
25 guidelines in concert with Title 24 and other best

1 practices as they evolve, we are working with California
2 state agencies, California builders, California architects
3 and suppliers, et cetera, in those revisions.

4 Also, another key difference is Green Point Rated
5 to address the question earlier is addressing the
6 remodeling and existing homes. So whereas LEED is only
7 focused on new construction, we are focused on new
8 construction and remodeling existing homes, which is
9 obviously extremely important to meet our resource goals.

10 --o0o--

11 MR. GITT: How is this going to work? We have
12 executed a Memorandum of Understanding with the LEED for
13 Homes provider in the state of California, which is Davis
14 Energy Group. We have an agreement that states the
15 following.

16 Number one, we're going to cross-train our
17 third-party raters. So every single rater that's going to
18 be rating LEED projects in California is going to have to
19 be certified by Build It Green and become a certified
20 Green Point Rater. So we're going to make sure that
21 wealth of knowledge is crossing the spectrum so the raters
22 in the field throughout California have that expertise on
23 both systems.

24 We're developing an equivalency tool, which means
25 that if you were doing a LEED for Homes project in

1 California, you will automatically through this
2 equivalency tool get a Green Point Rated score. It will
3 be a single process, one rater, one scorecard, not doing
4 two separate things. It's one process. But so every
5 single LEED for Homes project in the state of California
6 will automatically be Green Point Rated. And there are
7 dual branding options available for that builder.

8 We're also doing cross referrals with Davis
9 Energy Group. If a builder comes to LEED and says, "I
10 can't meet these 18 pre-reqs right now, I can't do that
11 yet," Davis Energy Group says, "Go over to Build It Green
12 and participate in the Green Point Rated Program."

13 If someone comes to us and they are eligible,
14 they have met those 18 pre-reqs we say great. Go do LEED.
15 And you're automatically going to get a Green Point Rated
16 score on that home to show California how you're doing
17 versus the building code.

18 --o0o--

19 MR. GITT: I want to talk about climate change
20 because that's obviously on the minds of so many folks
21 right now with AB 32 passing. Green Point Rated is going
22 to provide a tangible metric in California to benchmark
23 how our residential infrastructure of housing is going to
24 impact this issue. Let's just take a base case Green
25 Point Rated home, 2,000 square foot home. These various

1 things, that much gas, this much debris, landscape area,

2 et cetera. Well, in that model --

3 --o0o--

4 MR. GITT: -- you can see that we are avoiding

5 10,000 pounds of annual CO2 reduction by building to Green

6 Point Rated standard. And because this is third-party

7 verified and because we're tracking all this in a

8 centralized tracking system, we're going to be able to

9 help cities report out to the State on how many -- for

10 example, City of Santa Rosa, let's say they have 5,000

11 Green Point Rated homes. We'll be able to tangibly say

12 how much waste was diverted, how many gallons of water,

13 how many kilowatts of energy and how many CO2 emissions

14 were avoided by those specific third-party rated homes.

15 In addition to that, the next step is to go not

16 just to the base case scenario, but to go measure by

17 measure. We want every single measure in there to have a

18 CO2 equivalent. We are partnering with ICLEI, which works

19 with cities all across the country and green building in

20 Alameda County to develop quantification of benefits per

21 measure. Every single best practice in our rating program

22 will have a CO2 equivalent on that. And that will all be

23 incorporated into the rating process. So we're taking

24 this to the next step. Base case isn't good enough. We

25 want to show actual quantifiable and measurable results

1 how Green Point Rated homes in California will help the
2 State achieve AB 32. And we're going to be rolling this
3 out for multi-family and single family remodeling as well
4 after new construction is completed.

5 --o0o--

6 MR. GITT: So that's what I have.

7 CHAIRPERSON BROWN: Wes, do you have any
8 questions?

9 BOARD MEMBER DANZINGER: The 50 percent waste
10 diversion, just quick clarification. The 50 percent
11 diversion pre-requisite, that's a pre-requisite meaning
12 all the projects have to achieve that, or that's from the
13 pick and choose list?

14 MR. GITT: No. It's not pick and choose. Every
15 single Green Point Rated project within the state of
16 California has to divert 50 percent of its waste or it
17 cannot be Green Point Rated.

18 CHAIRPERSON BROWN: Let me ask you a question.
19 Are there any other states -- where we've been grappling
20 in the Legislature and throughout the state with green
21 building guidelines, green building standards. Are this
22 any states that are moving in one direction or the other?
23 And is there in your mind a preference, you know? Would
24 guidelines do much? Are people going to voluntarily go to
25 it? Or do we really need to look at standards?

1 MR. GITT: Great question. Build It Green has
2 the consensus document today in California which are
3 guidelines for new home construction, multi-family home
4 remodeling. We're working with about 80 public agencies
5 right now that are in this process of adopting those in a
6 grassroots way. There's not a State agency yet that's
7 holding that authority. But pretty much in the next
8 couple of years, you're going to see just about every city
9 and county, for the most part the larger ones, already
10 using a consistent set of Build It Green guidelines.

11 I think guidelines are extremely important.
12 Because if you have a different definition every time a
13 builder crosses a city or county line, we have big
14 problems. We have huge cost increases because of the time
15 to actually relearn a new set of guidelines and point
16 system. So consistent guidelines are essential and are
17 the basis for any kind of mandatory policy.

18 In Build It Green, we are in favor of a
19 market-based approach. We feel that if we can engage the
20 private sector, show them the inherent incentive in doing
21 this, it's going to happen much quicker than a mandatory
22 top-down approach. But with that said, there's a lot that
23 can happen on a policy level to give the right incentives
24 to create the right market conditions, specifically with
25 having a consistent set of residential guidelines for

1 multi-family housing, for new home construction or single
2 family and home remodeling.

3 CHAIRPERSON BROWN: Thank you.

4 Any other questions? Thank you very much.

5 BRANCH MANAGER ORR: Well, first of all, I'd like
6 to thank all of our panelists this morning.

7 (Applause)

8 BRANCH MANAGER ORR: I think the time has been
9 really tight. Are there any other compelling questions
10 you would like to ask before we move to the next phase of
11 the presentation?

12 BOARD MEMBER CHESBRO: Yes. We talked about the
13 up-front development of green buildings here today. We
14 didn't talk much about the operations, and maybe that's a
15 topic for another day. But, obviously, you can build a
16 green building and if it's not managed in a green way, it
17 isn't going to produce the maximum benefit. And so is
18 there a short answer, Bill? Or should we agendize it as a
19 different discussion about how you assure that the benefit
20 is obtained? Because you have trained and certified and
21 monitored ongoing operations and staff.

22 BRANCH MANAGER ORR: I could answer that, but I'm
23 going to rely on Charles, I think would like to take a
24 stab at that one.

25 MR. ELEY: CHPS has a program we're trying to

1 launch, and we're calling it the school facilities report
2 card. And it would be a combination of occupant surveys
3 and benchmarking. The benchmarking would deal with water,
4 waste disposal, energy, things that you can measure. The
5 occupant surveys would deal with the acoustics, air
6 quality, thermal comfort, and daylighting and lighting.

7 And the idea is that school districts would
8 subscribe to this program. And they would -- at the end
9 of the year, every facility in their district would get a
10 score. We're thinking A through F, because school
11 districts, kids, teachers, they all know that scale. And
12 you know, if your school building gets a D or a C, there's
13 room for improvement. So we're trying to launch this
14 program. But it's, at this point, still an idea.

15 CHAIRPERSON BROWN: Well, Dan, the benchmarking
16 that DGS is doing on your buildings is something, if I
17 remember this slide, you will do every five years to make
18 sure that you maintain the efficiency.

19 MR. BURGOYNE: We're benchmarking continuously
20 like every year or ideally have it automatically
21 benchmarked so you'll have a running benchmark.

22 BOARD MEMBER CHESBRO: Is there a training
23 component or building operators? I mean, I'm reminded
24 of -- I'm speaking from experience here, only a Prius.
25 I'm reminded of a Prius owner driving by going 80 miles an

1 hour. Guess what. They're getting about 15 miles to the
2 gallon just like everybody else. It's not just the
3 investment in the up-front equipment. It's how you use it
4 that produces the benefit.

5 BRANCH MANAGER ORR: I think the training
6 component is important. A couple of our speakers have
7 touched it on briefly today. I think in terms of LEED for
8 exiting buildings, that's all about policies and
9 integration into operations.

10 I think on the school side, commissioning is
11 important for that transition from building to building to
12 operating the building and make sure it meeting its design
13 intent. And then throughout the course of operations, we
14 heard also about the CHPS operation and maintenance
15 volume. There have been various trainings for school
16 facilities, managers, and the building operators as well.

17 But we can definitely talk about this more. I
18 know we have a really tight time schedule. But obviously,
19 about 10 percent of the resources associated with the
20 building is during the construction phase. And really
21 you're looking 80 to 90 percent has to do with the
22 operations phase and the productivity. It really is just
23 the tip of the iceberg.

24 BRANCH MANAGER ORR: Okay. We're moving on to
25 our next phase, which will be a panel from the California

1 State University of Chico. And what I'm simply going to
2 do is turn the microphone over to Dennis Graham, who is
3 the Vice President for Business and Finance. And he will
4 introduce the speakers and get their part of the panel
5 discussion going.

6 MR. GRAHAM: Thank you. Thank you, Bill.

7 We are pleased and honored that the California
8 Integrated Waste Management Board is visiting Chico State
9 and at their meeting today.

10 Our PowerPoint is longer than your meeting.
11 We've given you a copy of the PowerPoint presentation and
12 asked that you include it in your documentation today.
13 However, we want to give you some brief presentations
14 of -- before I do that, I would like to extend a very
15 sincere thank you to your Manager of Recycling
16 Technologies and our friend, Bill Orr. You need to know
17 we would not be here today if it was not for Bill's
18 unending dedication to professionalism. He helped us to
19 understand the world of recycling, sustainability, and a
20 better environment. You introduced us to Christine
21 Fowler. You introduced us to sustainability. You
22 introduced us to LEED.

23 The last event that we had in your building was
24 where we declared the Student Services Consider would be a
25 LEED certified Gold building. We will have commissioning

1 on that building. We would have the kiosk that will show
2 live the efficiency of the units within the building that
3 anybody can look at any time. So it will be monitoring
4 dynamically all the time. You introduced us to U.S. Green
5 Building Council. You introduced us to a number of
6 professionals in California and across the nation. I'd
7 like to publicly thank Bill Orr for what he's done for
8 this campus and northern California. We also want to
9 recognize that Bill is a Chico State alum.

10 This morning you'll hear from our President, our
11 Provost and Vice President for Academic Affairs, our
12 Associated Student, a couple capital projects. And you're
13 scheduled to hear from the community college, however Mike
14 is ill this morning.

15 The first presenter is the President of the
16 university, Paul Zingg.

17 MR. ZINGG: Thank you, Dennis. And it's great to
18 have you here. This is a rare treat for our community and
19 for our university.

20 And we think you're here for several good
21 reasons. One is, I imagine, you're here because you've
22 noticed some of the things that we are doing on our
23 campus. Some of the commitments, some of the proof that
24 we are walking the sustainability talk. We think you're
25 here also because you recognize alignment between your

1 mission, your goals, your values, and ours. We will
2 reveal in just short fashion some of the ways in which
3 those observations and those awarenesses are correct.

4 But I think what I most want to leave with you in
5 just a few comments here is that you're only going to
6 scratch the surface. Whatever awareness that you have of
7 what we are doing barely reveals the depth of our
8 commitment. This is not the program de jour on this
9 campus. This is not something that we invented as part of
10 our list of goals for this year. Sustainability at Chico
11 State is an orientation. And it's an orientation that
12 even goes beyond service. It focuses on stewardship. And
13 what I mean by stewardship is taking the responsibility
14 and being ready to be held accountable in order to
15 accomplish several specific and fundamental goals under
16 the banner of sustainability. It means being responsible
17 for the economic development for the community development
18 in the state. It means being responsible for clean
19 environment, for a healthy population, for a robust
20 democracy.

21 And we do that in many ways. We're going to
22 celebrate in about a half an hour the topping-off ceremony
23 for a building that reflects that orientation. A building
24 that reflects a commitment to sustainable design in the
25 systems and the processes relative to campus operations.

1 A building that reflects the harmony between the natural
2 environment and the built environment. A building that
3 reflects our service and our responsibility to those that
4 come after us.

5 So the extent to which your concern is with
6 recycling, your concern is with waste management, your
7 concern is with bringing new technologies to bear in order
8 to solve those problems, right next door to this building
9 is a project underway that incorporates new technology,
10 that reflects in design and in the operation of that
11 building the ways in which we recognize that
12 sustainability is not just today's slogan. It is
13 something that is fundamental to our quality of life, and
14 it is something that is fundamental to the character and
15 the values of this institution.

16 I hope you will get a glimpse of a little bit
17 more and the comments that follow me about the depth of
18 that investment. There are many manifestations of it and
19 many people who deserve credit for what we are doing. But
20 if I can leave you with just one message to take place and
21 to take with you, it is this difference between
22 sustainable engagements as more than simply service. It
23 really focuses on the notion from stewardship and the
24 responsibility that we recognize and take on in order to
25 be leaders and in order to be teachers for our students,

1 for this community for the north state and beyond. That
2 this is a critical commitment that generations that follow
3 us depend upon. It is about touching the future which is
4 what teaching is all about. And we reflect that in the
5 buildings that we design, in the practices that we follow.

6 So welcome. And I believe Sandra Flake, our
7 Provost, is going to give you a little bit more
8 specificity as we move in that sort of 30,000 foot level
9 to something a little bit more chewable. Thank you.

10 CHAIRPERSON BROWN: Thank you very much.

11 MS. FLAKE: Thank you very much for allowing me
12 to talk to you a little bit about some of the initiatives
13 and programs on the campus that are imbedded throughout
14 the campus and in academic affairs and teaching and
15 learning programs that supports sustainability and
16 stewardship.

17 First of all, we have a website that is focused
18 on our sustainable future. There's a link to it right
19 from the home page. So it's accessible for anyone who
20 comes to the Chico State website. And it updates the
21 campus, the community, and everyone else on the kinds of
22 initiatives we're involved in.

23 We have new programs in engineering that are
24 focused on renewable energy, sustainable construction, and
25 biofuels. In fact, we have recently had a biodiesel

1 project that was conducted by students that won the grand
2 prize in prestigious West Tec, the western tool exposition
3 and conference manufacturing challenge. What our students
4 did was automate a process for converting used vegetable
5 oil from food services into diesel that can be used on our
6 farms at not just a much greater cost, but obviously
7 reusing the resource and having a true benefit for much
8 less cost.

9 In addition, we have several positions on our
10 campus that are committed to sustainability. The Rawlins
11 Professor of Environmental Literacy, an academic position
12 filled by Jim Pushnik; the University Coordinator of
13 Sustainability. We have a Director of the Institute for
14 Sustainable Development, Scott McNall. And we have a
15 Director of Civic Engagement. All of these positions are
16 focused on use related to sustainability and stewardship
17 and integrate some of the various opportunities that we
18 have.

19 Our campus is an arboretum. If you had a chance
20 to see the campus, you know what I mean. The diversity of
21 plants and trees serve as a wonderful laboratory for
22 students and for our communities.

23 We also operate a system of preserves including
24 4,000 acres that are close to campus used as an outdoor
25 laboratory including Big Chico Creek, Butte Creek, and

1 Eagle Lake Biological Field Station.

2 As of last week, we began operating our new
3 organic dairy, and we have an organic farm.

4 This year, we began an environmental film
5 festival this spring called the CH Star Eco Film Festival.

6 We have over 150 courses in our curriculum that
7 address sustainability, green, and stewardship issues, in
8 addition to full programs in environmental studies both at
9 the undergraduate and graduate level where we have
10 professional science master's degree in sustainability and
11 environmental science. And we have programs for
12 environmental research and creativity grants.

13 And then finally, we have had a speaker series
14 that featured eight nationally known speakers on issues
15 related to sustainability. These are just a sampling of
16 some of the kinds of initiatives that are going on on this
17 campus. Our students and our faculty and our staff are
18 fully engaged in this strategic goal for us. And we
19 really do believe that we can give back and that we can be
20 stewards of our resources.

21 CHAIRPERSON BROWN: Thank you very much.

22 MR. GRAHAM: Next we have Amy Miller, our
23 Associated Student Sustainability Coordinator, who will
24 say what the associated students are doing for
25 sustainability. Amy.

1 MS. Miller: Good morning. My name is Amy
2 Miller. And I'm the Sustainability Coordinator of the
3 Associated Students of California.

4 The Associated Students of CSU Chico is a
5 multi-million dollar nonprofit public benefit corporation.
6 The Associated Students employs more than 800 students and
7 120 full-time staff over the course of any one calendar
8 year, making it one of the largest employers in the city
9 of Chico.

10 The Associated Students runs the campus food
11 services, the book store, in this building the Bell
12 Memorial Student Union in addition to the many programs
13 and services that are under its osmosis, some of which I
14 will mention in more detail later.

15 Like the University, the Associated Students has
16 deep roots in the Chico community. And like the
17 University, the Associated Students understand the
18 necessity of providing models of sustainable organization.
19 With this recognition, the Associated Students is
20 committed to serving as a model of sustainability, both as
21 a representative of an educational institution and as a
22 corporation that operates not nearly for a bottom line but
23 for the benefit of the students, the employees, and the
24 Chico community.

25 In addition to environmental stewardship, the

1 values that are encompassed within sustainability include
2 fair labor practices, civic engagement, and personal
3 health. But most importantly, sustainability is about
4 taking a calculated look at the state of our world today
5 and responding with a strategic effort to ensure that the
6 world we leave for the generations that will follow is
7 just as vibrant and life-sustaining as the one we have
8 now, if not more so.

9 As an organization that strives to be a positive
10 force within the Chico community and within the SCU
11 system, the Associated Students is dedicated to being a
12 leader in this endeavor.

13 In the spring of 2006, the students of CSU Chico
14 voted to assess themselves a five dollar per semester fee
15 to establish the creation of the sustainability program
16 within the Associated Students. The program has already
17 become the nexus for coordinating and institutionizing
18 sustainability practices within the Associated Students as
19 well as working side by side with the university
20 sustainability coordinator and other campus programs to
21 educate our students and the greater Chico community about
22 the concept of sustainability.

23 The student referendum established the Associated
24 Student Sustainability Fund, which was conceived in order
25 to support student projects that explore and implement the

1 various facets of sustainability on a University campus.
2 The first set of these student projects will be funded
3 this fall.

4 The sustainability program joins many established
5 Associated Students programs that have been working for a
6 long time towards sharing goals of sustainability. As
7 recycling is one of these programs that was spearhead by a
8 group of enthusiastic students eleven years ago and now is
9 responsible for the collections of paper, plastic,
10 aluminum across campus, as well as other items such as
11 e-waste and lightbulbs.

12 The Venture Allen's program provides
13 opportunities for students to experience wilderness and
14 the outdoors, whether on water, snow, or trail, thus
15 allowing them to gain an appreciation and respect for
16 amazing natural worlds that is part of the legacy that is
17 California.

18 Not to be overlooked is the Community's Action
19 Volunteer and Education Program, which trains and places
20 more than 2400 student volunteers each year to go out into
21 the community to work with local school children and
22 nonprofit organizations such as the Chico Community
23 Environmental Gardens.

24 The community's legal information center, known
25 as CLIC, also has a role in sustainability by providing

1 free legal information to the public, thus allowing them
2 to exercise their legal rights and be fully engaged in the
3 democratic and legal processes of our society.

4 Another key to sustainability for the Associated
5 Students is it is not just the programs we offer but how
6 we operate as an organization. This month, the Board of
7 Directors of the Associated Students approved a climate
8 commitment that mirrors the one that the University had
9 previously signed and that the Associated Students has
10 also added in the past year two new long-range issues to
11 their strategic plan that address our commitment to
12 diversity and sustainability, again reinforcing the
13 University's six strategic priorities.

14 As an organization, we are actively turning these
15 written documents into practical actions at every level of
16 our operation. The Associated Students vehicle fleet
17 includes a Honda Civic Hybrid that hopefully is driven at
18 low speeds, I assure you. And an elec-truck, a
19 one-and-a-half ton biofuel pickup truck that runs on
20 propane as well as conventional gasoline and a handful of
21 electric-only vehicles that are used on campus and at our
22 warehouses.

23 We maintain the cleanliness of our buildings with
24 cleaning supplies that are safe both for the environment
25 and human health and stock our napkin and paper towel

1 holders and paper towel with recycled content paper
2 products that are processed chlorine free.

3 On a consumer level, our food service is
4 providing compostible dishware and to-go containers and
5 offering some organic and locally grown produce and
6 packaged items as a part of its menu and catering efforts.

7 Our book store sells a broad range of items that
8 in one way or another support sustainability, including
9 organic, cotton, Chico State t-shirts, and other fair
10 trade products, in addition to being nationally recognized
11 as one of the leading suppliers in the as used text books
12 to students.

13 The newest associated building, the Wild Cat
14 Activity Center, is in the final planning stages and is
15 being designed to meet LEED Silver certification, the
16 Student Services Center which is being celebrated today.

17 It is my hope that should the California
18 Integrated Waste Management Board convene again here in
19 Chico that the list of sustainability efforts being
20 undertaken by the Associated Students will be longer,
21 broader, and continuing to lead the way.

22 Thank you very much.

23 (Applause)

24 MR. GRAHAM: I hope you're learning the Chico
25 State Campus is the go-to campus. We are a destination

1 campus. The university students, 85 percent of our
2 students come more than 50 miles to get here. But they
3 come here not just for the academic curriculum, but they
4 are coming in droves now because of a lot of the
5 environmental studies that are occurring. But they also
6 come because of the culture and the disposition of the
7 campus and the people here. And as the President said,
8 sustainability or green or whatever name you want to call
9 it is not just a thing. It's not just a fad. It's a
10 responsibility that we all have and feel.

11 The last two presenters are my direct reports.
12 I'm honored to have Glennda Morse, who is the Director of
13 Facilities Management and Services, and Joel Trenalone,
14 who's the Interim Director of Facilities Planning.

15 MR. TRENALONE: Briefly, to kind of add to many
16 of the comments that have already been put forth this
17 morning, I want to primarily focus on our building
18 program. And this is our major capital. That would be
19 anything over \$400,000. We made a commitment obviously
20 campus-wide, but in our department even earlier than that
21 to build sustainable and make a Silver our minimum
22 requirement for any new building. Those services we're
23 going to achieve Gold on that.

24 We have several other projects either in design
25 or very close to construction. We have a Wild Cat

1 activity center which is a recreation fitness center to
2 the students. That will be LEED Silver. We have a
3 housing/dining facility that is coming up here again
4 almost in the same schedule here. That will be LEED
5 Silver. And we are also in the process of designing and
6 building for a natural history museum, a very small
7 building. But we will be certifying that at LEED Silver.

8 The philosophy and facilities planning really, as
9 has been mentioned earlier, goes beyond just obtaining
10 points and getting a certification. We want to approach
11 it holistically. And it really dovetails everything else
12 that has been said this morning. We want to look at the
13 construction, see how the people who work in the buildings
14 are affected. We know LEED is a holistic way of
15 approaching it. And I'd like to expand further on out and
16 use it as an educational tool for not only the campus, our
17 staff, the campus, and also the community.

18 One more brief thing I'd like to mention is we
19 are also moving forward campus-wide as far as master
20 planning and transportation planning to do a full
21 transportation demand study and hopefully adopt some
22 principles that we can help or alternatives for
23 transportation such as the bike riding, walking on the
24 campus.

25 So with that in mind, what I'll do is hand it

1 over to Glennnda. She'll help us further on as we go
2 through construction and maintenance of the buildings and
3 how we approach that.

4 MS. MORSE: I'm Glennnda Morse, the Director of
5 Facility Management and Services here at Chico State. And
6 I was glad to see a question was raised about the
7 operations of our buildings and how we're approaching that
8 as we prepare for our first LEED certified building. And
9 I'm not going to go with my text, because I'm running out
10 of time.

11 But this has been going on for two or three
12 years. We knew we have to train up our staff to be ready
13 to go into this kind of an approach when it comes to the
14 operation of our building. So we began also working with
15 our vendors, because we knew we would have to change over
16 to our green sealed products. And being a smaller
17 northern California area, we can impact a lot of vendors
18 if we don't go through this process gracefully.

19 But I'm proud to say at this point we are buying
20 100 percent recycled green sealed products for all of our
21 toilet and paper supplies. This took two to three years
22 to gradually change our purchase orders over. Still go
23 through the procurement process that we are required to go
24 through with the State.

25 And this year we're also starting with the

1 building waxing and flooring program. And we are not
2 incorporating those just in our one LEED certified
3 building. It's campus wide. We can't take care of one
4 building separate or different from another one, because
5 we have to bulk buy. And if we're going to bulk buy, it's
6 going to be the better products.

7 Part of the training was not only Dennis provided
8 for the direct reports to take us all down to Sacramento
9 to see the green buildings down there. But we also loaded
10 up our 18-passenger vans and sent our trades people down
11 there. This last summer was the last of our training, and
12 we hit the custodians. And what we did was we had an expo
13 day. We brought in a representative from the Betco
14 Company, and they talked to the custodians -- because we
15 know it's going to take more elbow grease when you use
16 green seal products. They're not as strong. But that's
17 the benefit. So he really hit home with them about the
18 healthful benefits of using these green environmental
19 products and the waxing and the removal process.

20 So this summer we're going into the process of
21 getting rid of all of the other waxes, and then we will be
22 going in with the green seal certified waxing cleaners and
23 wax removers for the future.

24 So, like I said, it's a two- to three-year
25 turnover. This didn't happen overnight. We can't let it

1 happen overnight because of the training involved with
2 every group in our department. And we will be monitoring
3 this new building. It's been a success with the kiosk
4 that will be in the building so that we can electronically
5 find out how we are taking care of the building. And then
6 we would also like to do -- and we haven't finalized it
7 yet -- a customer satisfaction survey with the building
8 occupants to find out how they like being in the new
9 building as well. Kind of a snapshot, but if you have any
10 questions, I can answer them.

11 CHAIRPERSON BROWN: Thank you very much. I don't
12 know if any Board members have any questions. You all
13 should be very proud, and we're honored to be here. What
14 you've launched to be a new program of integrating
15 stewardship and sustainability is just incredible. I
16 mean, I don't think when we contemplated having our Board
17 meeting here because we wanted to applaud your efforts we
18 had any idea how you have fully integrated this into the
19 entire culture of the community here at Chico State. And
20 I mean, I'm speechless.

21 And it certainly is setting the standard for
22 campuses throughout the state of what can be achieved by
23 just making the commitment and the leadership that, Mr.
24 Zingg, you have started and integrated into the entire
25 culture of your faculty and students here and employees.

1 So I want to applaud you. And we'll probably say
2 the same thing in just about 15, 20 minutes. But I'm so
3 impressed I can't even put into words other than what I've
4 done how amazing what you've been able to achieve so far.

5 MS. MORSE: Thank you.

6 BRANCH MANAGER ORR: I think that pretty much
7 concludes our panels today. I think we're moving onto the
8 recognition phase now. Our panelists are all going to be
9 around during the lunch period as well. There's also
10 going to be some displays and so forth. So you'll
11 hopefully have an opportunity in a more informal setting
12 to talk to some of the people individually and find out
13 more about what's going on with the campus and also with
14 green building.

15 CHAIRPERSON BROWN: Great. And we do have a
16 Resolution that we would like to present to you, President
17 Zingg, and your faculty. We can do it here. We can do it
18 downstairs as well. We can do it twice. That's called
19 reuse or regifting. That would be the Indian gift. Do
20 you want to do it downstairs as part of the ceremony?

21 BRANCH MANAGER ORR: I think so.

22 CHAIRPERSON BROWN: I think that would be fine.

23 MR. GRAHAM: If you are going to be the speaker
24 at the topping-off the ceremony, you could do it right
25 then.

1 CHAIRPERSON BROWN: Why don't we do it. We'll
2 present it to you during the ceremony.

3 And then I know you all have things that you need
4 to do. We have a couple of closing things we need to do
5 as part of the Board meeting before we can join you. So
6 just thank you so much for being here. The presentation
7 was amazing.

8 (Applause)

9 CHAIRPERSON BROWN: We do have one person who
10 would like to speak on this agenda item briefly, Christine
11 Flowers from Keep California Beautiful.

12 Sorry I shoed your audience.

13 MS. FLOWERS: You did. This is half for them and
14 half for you.

15 CHAIRPERSON BROWN: The President is standing
16 right behind you.

17 MS. FLOWERS: My name is Christine Flowers-Ewing.
18 I'm the Executive Director of Keep California Beautiful.
19 What I would like to do on behalf of higher education as a
20 former college professor who was engaged in promoting
21 campuses achieving and acting more responsibly in building
22 and operating their campus, I'd like to commend the Board
23 for its commitment to helping higher education walk the
24 sustainability talk.

25 During two years I was on loan to the Waste Board

1 as a visiting instructor in sustainable building in 2002
2 to 2004. I was given the opportunity to work with various
3 Waste Board and DGS staff to help promote the concept of
4 sustainable building to the community colleges where I was
5 from, the CSUs and the UCs.

6 CSU Chico is a primary example of how a
7 collaborative effort between State agencies and targeted
8 assistance has helped for the campus changing culture to
9 truly embrace sustainability and integrate it throughout
10 the curriculum, facilities operation, and the community.
11 And it's leading the CSU.

12 From someone who's been an educator for many
13 years, it's very difficult to get culture change on a
14 campus. And they were very open. And I have to thank
15 Bill Orr personally. When I was looking for an
16 opportunity to take a sabbatical, we worked out an
17 arrangement with an interagency agreement, and I was able
18 to come on board at the Waste Board. And everyone put up
19 with my shenanigans with setting up meetings and pulling
20 people in, and I want to do it this way. And I was given
21 free reign to go out and make partnerships happen. And
22 this is a really great example of what can happen.

23 And I wanted the Board members to know that,
24 because some of you are new. But the Waste Board did lead
25 the way with getting the change, not only with the CSU

1 system, but the UCs and the community colleges. And I'd
2 like to say thank you very much. And I look forward to
3 working with CSU Chico in my new position with some of
4 their efforts. So thank you very much.

5 CHAIRPERSON BROWN: Thank you, Christine.

6 Is there anybody else who would like to speak
7 during public comment period? We have exhausted our
8 entire agenda for the day. So I will adjourn this
9 meeting, and we will go down for the ceremony. Thank you.

10 (Thereupon the California Integrated Waste
11 Management Board adjourned at 11:48 a.m.)

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1 CERTIFICATE OF REPORTER

2 I, TIFFANY C. KRAFT, a Certified Shorthand
3 Reporter of the State of California, and Registered
4 Professional Reporter, do hereby certify:

5 That I am a disinterested person herein; that the
6 foregoing hearing was reported in shorthand by me,
7 Tiffany C. Kraft, a Certified Shorthand Reporter of the
8 State of California, and thereafter transcribed into
9 typewriting.

10 I further certify that I am not of counsel or
11 attorney for any of the parties to said hearing nor in any
12 way interested in the outcome of said hearing.

13 IN WITNESS WHEREOF, I have hereunto set my hand
14 this 4th day April, 2007.

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